

**REMARKS**

Claims 1-17, 26 and 28-37 are all the claims presently pending in the application. Claim 5 has been merely editorially amended for clarity.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicants specifically state that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claim 5 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 1-11, 13, 15-17, 29, 31-33 and 35-37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the alleged Applicants' Admitted Prior Art (hereinafter "AAPA") in view of JP09139426 and further in view of JP362145718. Claims 12 and 28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of JP09139426 and JP362145718 further in view of JP401117319. Claims 14 and 30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of JP09139426 and JP362145718 further in view of Shimazawa et al. (U.S. Patent No. 6,294,911; hereinafter "Shimazawa"). Claims 26 and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of JP09139426 and JP362145718 further in view of JP411173774.

These rejections are respectfully traversed in the following discussion.

## **I. THE CLAIMED INVENTION**

The claimed invention of exemplary claim 1 provides a method of thermally treating a magnetic layer of a wafer including applying at least one local magnetic field to the magnetic layer (e.g., see Application at page 7, lines 15-21). This combination of features allows for a fast and local annealing of magnetic stacks (see Application at page 3, lines 20-21). Additionally, magnetic stacks using an exchange-biasing antiferromagnet such as PtMn can be reliably and efficiently annealed in a magnetic field after deposition, in order to align the pinning of the magnetic reference layer (see Application at page 4, lines 15-18).

## **II. INDEFINITENESS REJECTION**

The Examiner alleges that the subject matter of claim 5 is indefinite. Specifically, the Examiner alleges that the phrase “of at magnetic” is indefinite.

Applicants have amended claim 5, above, to recite “of a magnetic”.

Accordingly, the Examiner is respectfully requested to reconsider and withdraw this rejection.

## **III. THE RELATED ART REJECTIONS**

### **A. Claims 1-11, 13, 15-17, 29, 31-33 and 35-37**

The Examiner alleges that the alleged AAPA would have been combined with JP09139426 and JP362145718 to teach the claimed invention of claims 1-11, 13, 15-17, 29, 31-33 and 35-37. Applicants submit, however, that, even if combined, the alleged

combination of references would not teach or suggest each and every feature of the claimed invention.

First, Applicants point out the Examiner's rejection is based on alleged Applicant Admitted Prior Art. Applicants point out, however, that they have not admitted anything as Prior Art in the Application.

Indeed, the description at pages 1-3 of the Application (in the section titled "Description of Related Art") merely describes a "conventional" technique. This description does not refer to a Prior Art technique. The Examiner is reminded that there is a difference between a conventional technique and prior art. The present application does not state or admit that the described "*conventional*" technique is prior art to the present application under any section of 35 U.S.C. § 102.

Accordingly, Applicants respectfully submit that the Examiner's use of the "conventional" technique, for establishing an obviousness rejection under 35 U.S.C. § 103(a), described at pages 1-3 of the Application is improper.

Therefore, if the Examiner wishes to maintain this rejection, Applicants respectfully request the Examiner to base his rejection of a reference that qualifies as prior art under one or more sections of 35 U.S.C. § 102.

Second, Applicants submit that neither the alleged AAPA, nor JP09139426, nor JP362145718, nor any combination thereof, teaches or suggests "*applying at least one local magnetic field to said magnetic layer*", as recited in claim 1, and similarly recited in claims 11 and 15.

The Examiner alleges that JP362145718 teaches “well-known local area beam annealing.” (See Office Action dated March 1, 2007 at page 3). The Examiner, however, is clearly incorrect.

That is, JP362145718 merely teaches scanning rows along an entire annealed wafer wafer. However, JP362145718 does not teach or suggest that the annealing is done locally.

Furthermore, JP362145718 does not teach or suggest “*wherein said applying at least one local magnetic field to said magnetic layer comprises applying a magnetic field to less than an entirety of said magnetic layer*”, as recited in exemplary dependent claim 35.

Furthermore, the Examiner alleges that JP09139426 teaches “well-known local magnetic field application.” (See Office Action dated March 1, 2007 at page 3).

However, there is nothing in the Abstract nor the Figures of JP09139426 that supports the Examiner’s allegations. Therefore, if the Examiner wishes to maintain this rejection, Applicants respectfully request the Examiner to obtain and provide a translation of the reference and specifically point out the support for his allegations.

Moreover, Applicants point out that the Examiner has not addressed any of the limitations recited in dependent claims 2-10, 13, 16, 17, 31-33 and 35-37. If the Examiner wishes to maintain this rejection, Applicants point out that the Examiner must address each and every limitation in each of the claims and point out which features of the applied references the Examiner is relying upon to support his allegations.

Therefore, Applicants respectfully submit that, even if combined, the alleged combination of references would not teach or suggest each and every feature of the

claimed invention. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

**B. Claims 12 and 28**

The Examiner alleges that the alleged AAPA would have been combined with JP09139426, JP362145718 and JP401117319 to teach the claimed invention of claims 12 and 28. Applicants respectfully submit, however, that even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

That is, Applicants submit that claims 12 and 28 are allowable based on similar arguments to those set forth above with respect to claims 1-11, 13, 15-17, 29, 31-33 and 35-37. The above arguments are not repeated here, for brevity.

Therefore, Applicants respectfully submit that these references, even if combined, would not teach or suggest each and every feature of the claimed invention. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

**C. Claims 14 and 30**

The Examiner alleges that the alleged AAPA would have been combined with JP09139426, JP362145718 and Shimazawa to teach the claimed invention of claims 14 and 30. Applicants respectfully submit, however, that even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

That is, Applicants submit that claims 14 and 30 are allowable based on similar arguments to those set forth above with respect to claims 1-11, 13, 15-17, 29, 31-33 and 35-37. The above arguments are not repeated here, for brevity.

Therefore, Applicants respectfully submit that these references, even if combined, would not teach or suggest each and every feature of the claimed invention. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

**D. Claims 26 and 34**

The Examiner alleges that the alleged AAPA would have been combined with JP09139426, JP362145718 and JP411173774 to teach the claimed invention of claims 14 and 30. Applicants respectfully submit, however, that even if combined, the alleged combination of references would not teach or suggest each and every feature of the claimed invention.

That is, Applicants submit that claims 26 and 34 are allowable based on similar arguments to those set forth above with respect to claims 1-11, 13, 15-17, 29, 31-33 and 35-37. The above arguments are not repeated here, for brevity.

Furthermore, with respect to JP411173774, the Examiner alleges that selective cooling of a wafer is well known in the art as disclosed by JP411173774 (see Office Action dated March 1, 2007 at page 4). The Examiner, however, is clearly incorrect.

That is, the selectivity in JP411173774 merely relates to the choice of heating or cooling to reduce temperature unevenness, which is different from the claimed invention.

Therefore, Applicants respectfully submit that these references, even if combined, would not teach or suggest each and every feature of the claimed invention. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

### III. FORMAL MATTERS AND CONCLUSION

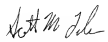
In view of the foregoing, Applicant submits that claims 1-17, 26 and 28-37, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 50-0510.

Respectfully Submitted,

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